


## Thirde Skills:



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## What is a third? :



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## Duties and Responsibilities :



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## Duties and Responsibilities

- Arrive early to help check out the ambulance
- Participate with crew activities such as cleaning, training, etc.
- Communicate with your crew leader

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## Station and Unit Cleanliness



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## Station Cleanliness

- Clean up after yourself.
- Make your bed.
- Do not leave dirty linens at the station.
- Clean up dirty dishes.
- Empty trash cans.
- Turn the lights off before leaving.
- Adjust thermostats to normal levels before leaving.
- Leave the Station cleaner than you found it.



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## Unit Cleanliness

- Wash outside of ambulance at the beginning of shift.
- Clean and wipe down the inside of the ambulance after each and every call.
- Restock the unit and return items to their proper place, so the ambulance is ready for the next call.
- Clean the stretcher and replace linens after each call.

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## Safety



*"Safety is the responsibility of everyone." If you see something, say something. Just as well, everyone on a unit is a safety officer. Leaders should provide the tools for even the third to fill this role."*

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## Safety at Forest View

Attitude

Responsibility

Awareness



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## Safety at Forest View

- Driving to duty
- At the station
- On a call



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## Safety at Forest View

Safety begins when you are in route to the station for a shift.



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## Safety at Forest View

### Station Safety

- A clean station eliminates trip hazards
- Use equipment properly
- What else can you think of?



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## Safety at Forest View

### On a Call

- Use your seat belt.
- Make sure you are wearing gloves on all calls.
- Make sure equipment is secure.
- Always wear your safety vest when operating in lanes of travel, i.e. highways, streets, and parking lots.
- Make sure you stay with your crew at all times.
- Be aware of your surroundings.
- Communicate!



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## Any Questions ?



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# Infectious Diseases

## Concerns For Medical Personnel

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### Infections to be discussed:

- HIV/AIDS
- Tuberculosis
- Hepatitis:
  - Type A (HAV)
  - Type B (HBV)
  - Type C (HCV)
- Avian Flu

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### Objectives

- disease definition
- how the disease is transmitted
- signs and symptoms
- disease prevention
- type of Body Substance Isolation (BSI)

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## HIV/AIDS

**HIV** (Human Immunodeficiency Virus) is a virus that attacks and destroys the immune system making the patient vulnerable to any infection.

## HIV/AIDS

**AIDS** (Acquired Immune Deficiency Syndrome) is defined by the Centers For Disease Control and Prevention as "a specific group of diseases or conditions" which are indicative of severe immunosuppression related to the **HIV** (Human Immunodeficiency Virus) infection.

## HIV/AIDS

Indications are that the AIDS virus identified in humans, may have evolved from a related **Simian Virus (SIV-III)** that was seen in this species of monkeys. How this disease was transmitted to humans, is still questionable.



## HIV/AIDS

- First American case was diagnosed in 1981
- Once infected with the HIV infection, transmission can be by various means.
- By the end of 2005, 40 million (+) HIV cases have been reported worldwide.
- To date, 27.8 million have the disease.




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## HIV/AIDS

Documented U.S. AIDS Cases:		Documented Florida AIDS cases:	
1981	152 cases	1981	7 cases
1983	4,156 cases	1983	243 cases
1985	20,470 cases	1985	1,100 cases
1990	161,073 cases	1990	13,776 cases
1995	513,486 cases	1995	51,548 cases
2000	774,467 cases	2000	80,377 cases
2005	950,000 cases	2005	95,000 cases

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## HIV/AIDS

- As of January 2005, CDC estimates that 850,000 to 950,000 U.S. residents are living with the HIV infection, one-quarter of whom are unaware of their infection.
- 40,000 new cases occur year.
- Many cases are just not reported!




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## HIV/AIDS

AIDS is now the **fifth leading cause of death** in the United States among people aged from 25 to 44 years and behind:

- unintentional injuries (trauma)
- cancer
- heart disease
- suicide

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## HIV/AIDS

50% of those that are infected with HIV will generally develop some signs and symptoms related to the virus within 5 years.

30% of those that are infected with the HIV infection, will eventually go on to develop the AIDS virus.

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## HIV/AIDS

The most recent reports of AIDS/HIV cases suggest that:

- $\frac{1}{2}$  cases are among men who having sex with other men.
- $\frac{1}{4}$  cases are among intravenous drug use sharing used syringe and needles.
- $\frac{1}{4}$  cases are among heterosexuals.

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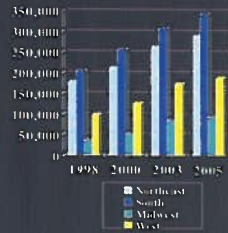
## HIV/ AIDS

AIDS incidence by  
Region, 1995-2005

- Majority of cases are in the South and Northeast regions

Total regional cases per year:

- 1995 513,486
- 2000 774,467
- 2003 848,000
- 2005 944,306



## HIV/ AIDS

- Still a high mortality rate.
- Approximately 80-90% diagnosed with AIDS, will die within 3-5 years of diagnosis due to complications.
- With advancements in medications and treatments, early intervention can possibly increase the quality of life and possibly increase the longevity of those infected.

## HIV/ AIDS

Human immune system consists of:

- skin
- mucus lining of the mouth/vagina
- cilia (hair) in the nose/respiratory tract
- antibodies and enzymes
- sweat
- stomach acids
- tears

## HIV/ AIDS

Antibodies in the human system:

- **T-4 helper Lymphocytes** which are white cells that direct the attack on the antigen.
- **T-8 killer Lymphocytes & B-Lymphocytes** are white cells that are directed by the T-4 helper cells in the elimination of the antigen.

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## HIV/ AIDS

- Without T-4 helper cells, the elimination process cannot occur.
- HIV then attacks, enters, and destroys these T-4 cells.
- The patient's defense system known as the immune system, destroyed and unable further illnesses.



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## HIV/ AIDS

- T-cells are found in most body fluids.
- Fluids **high in T-cells and having** the ability to transmit the HIV infection include blood, semen, vaginal secretions, and breast milk.
- Fluids **low in T-cells and not having** the ability to transmit the HIV infection include saliva, urine, and tears.

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## HIV/AIDS

- Chances of a health care-worker becoming infected by a needlestick is about **1 in 300 cases**.
- Chances of a health-care worker becoming infected due to blood to open wound is about **1 in 1,000 cases**.
- **DO YOU FEEL LUCKY!**



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## HIV/AIDS

As of 2005, 57 health care providers became infected. Of those 57 cases documented, 52 cases were percutaneous exposures due to:

- hollow bore needle (18)
- broken glass vial (2)
- scalpel (1)
- unknown sharp object (2)

**all cases involved exposure to contaminated blood**



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## HIV/AIDS

Disease is transmitted through:

- Sexual contact with infected person
- Blood to blood
- intravenous drug use (IDU)
- Pregnancy and breastfeeding
- Transfusions, but since blood screening began in the early 90's, those risks have been greatly diminished.

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## HIV / AIDS

Disease is not transmitted through:

- casual contact
- handshaking
- hugging
- kissing
- animals
- Insects



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## HIV / AIDS

Signs/Symptoms include:

- fatigue
- continuous flu-like symptoms
- weight loss
- night sweats
- grayish-purple lesions which is a type of cancer called Kaposi's Sarcoma.

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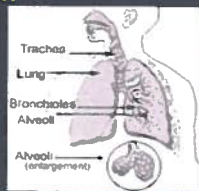
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## HIV / AIDS

The number one killer of AIDS patients is a lung infection called **Pneumocystis Carinii Pneumonia (PCP)**



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## HIV/ AIDS

*Protect  
Yourself!!*

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## HIV/ AIDS

Personal Protection should include:

- Gloves/double gloves if needed to prevent cross contamination.
- mask due to possible airborne diseases
- isolation gown, especially if rescue personnel have any open wounds.

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## HIV/ AIDS

Safety includes:

- Appropriate disposal of needles.
- no recapping of used sharps
- contaminated supplies disposed at a appropriate treating facility.
- hands washed with a anti-microbial agent.
- report and document any exposure on a Unified incident form.

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## HIV/AIDS

Significant exposures include:

- puncture of skin by contaminated needle
- blood to blood
- mucus to blood
- blood to mucus
- vomitus

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## HIV/AIDS

Immediately after exposure to blood from a patient:

- Wash skin with soap and water
- Flush splashes to the nose and mouth with water
- Flush eyes with Normal Saline
- Immediately report incident to supervisor.

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## HIV/AIDS

- Post-exposure testing should be initiated when a significant exposure has occurred
- Treating facility will draw baseline blood levels with post-exposure blood drawn at 6 weeks, 12 weeks, and 6 months.
- A follow-up is indicated at 12 months in certain circumstances.

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## HIV/AIDS

Therapy needs to be initiated within 24 hours and no later than 7 days post-incident to lower chance of infection.

- Recommendation for exposure to HIV-positive blood, is a four week course consisting of 2 (less blood exposure) to 3 or more (more blood exposure) antiretroviral medications referred to as *Highly Active Antiretroviral Therapy (HAART)*.

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## Tuberculosis

### THE AIRBORNE ATTACK

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## Tuberculosis

What is TB?

- it is bacterium called *Mycobacterium Tuberculosis*
- infects the alveoli within the lungs.

How is TB spread?

- by airborne bacteria
- since the droplets are so small, they remain airborne for extended periods of time.

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## Tuberculosis

Are all people infected with TB contagious?

- No, people with only the infection that do not exhibit or have any signs or symptoms are not contagious.
- many people are not even aware they are carriers of the infection.

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## Tuberculosis

- Patients that are exhibiting symptoms are known as *Active TB Patients*.
- Chance of infection depends:
  - on the amount of airborne particles in the area that you are located.
  - whether the area you are in is a closed or open environment.

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## Tuberculosis

What is MDR-TB?

- MDR-TB (Multiple Drug Resistant TB) is a form of TB resistant to antibiotics.
- per the Centers for Disease Control and Prevention (CDC), 50% of patients fail to complete their entire therapy and the remaining bacteria develops into a drug resistant strain.
- mortality is estimated at 50-80%.

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## Tuberculosis

Antibiotic medications used to treat TB include:

- Isoniazide (INH)
- Rifampin (RIF)
- Ethambutol (EMB)
- Pyrazinamide (PZA)
- Streptomycin (SM)

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## Tuberculosis

Signs/Symptoms include:

- cough for greater than 2 weeks
- unexplained weight loss
- night sweats
- loss of appetite
- fever
- coughing of blood (hemoptysis)
- fatigue

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## Tuberculosis

### PPD SKIN TESTING

- Mantoux PPD (Purified Protein Derivative) skin test which is an injection of a small amount of fluid under the skin



- results read in 48 to 72 hours

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# Tuberculosis

## PPD SKIN TESTING

- if the bubble swells and hardens, it indicates a possible exposure.
- retest is done in 6 months along with chest x-rays to verify infection.



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# Tuberculosis

## Prevention includes:

- TB/Hepa protective masks on both the patient and yourself.
- open all windows to enhance ventilation and reduce exposure of airborne particles.
- report and document any exposure on a Broward County Unified incident form.

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# Break Time



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# Hepatitis

## THE FORGOTTEN KILLER

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# Hepatitis

Effects the liver by inflammation.

Viral Hepatitis refers to several common diseases that lead to the swelling and tenderness of the liver which includes:

- Hepatitis A (HAV)
- Hepatitis B (HBV)
- Hepatitis C (HCV) Hepatitis D, E, and G will not be discussed in this presentation

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# Hepatitis

5 year Broward County Acute/Chronic Hepatitis cases:

Year	Type-A	Type-B	Type-C	Total cases
1999	61	68	6	135 cases
2000	93	54	6	153 cases
2001	117	26	0	144 cases
2002	158	87	1307	1552 cases
2003	52	606	3856	4518 cases

Information received through the Florida Department of Health  
Communicable Disease Frequency Report, December 30, 2003

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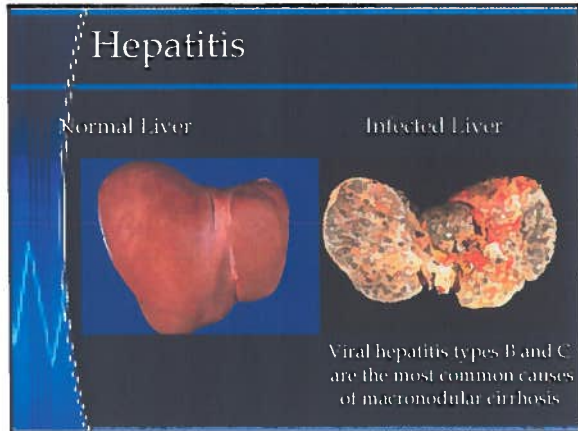
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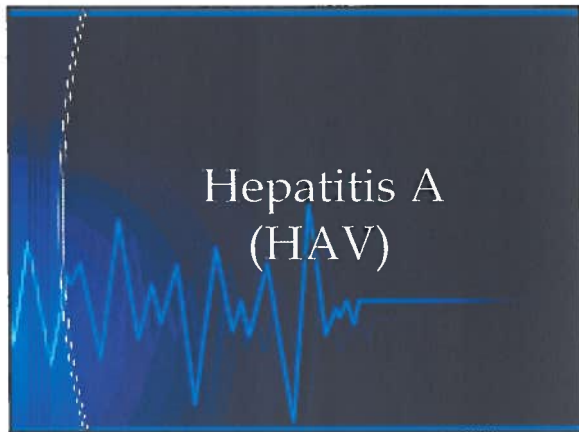
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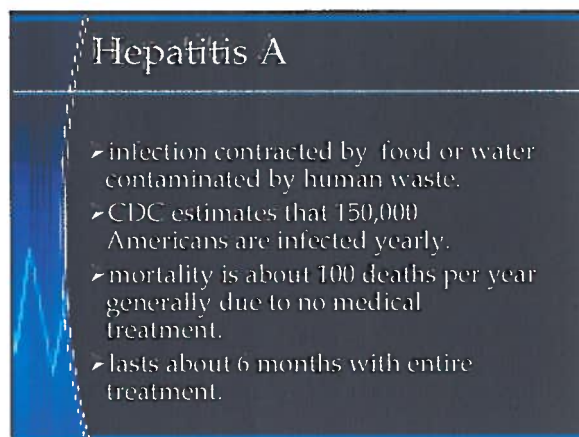
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## Hepatitis A

### Risk groups include:

- household and sexual contact with a infected person.
- eating foods touched by a infected handler.
- Intravenous drug use (IDU).
- travelers, especially those traveling overseas.
- ingestion of contaminated shellfish

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## Hepatitis A

### Signs/Symptoms include:

- jaundice, especially in the eyes
- fatigue
- abdominal pain
- loss of appetite
- intermittent nausea
- diarrhea

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## Hepatitis A

### Prevention includes:

- Hepatitis A vaccine
- proper hygiene and sanitation
- gloves, double up if necessary
- dispose of contaminated sharps in container.
- report-document exposure on a Unified Exposure Form

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## Hepatitis B (HBV)

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## Hepatitis B

### Hepatitis B

- can progress to a more serious form of hepatitis.
- more prevalent than HIV throughout the U.S. population.
- an estimated 1.2 million American people are infected yearly.

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## Hepatitis B

- mortality is estimated at 5,000 to 6,000 Americans per year.
- may progress further into a chronic disease, cirrhosis, or complete liver failure if problem is left untreated.

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## Hepatitis B

Transmission of disease is through:

- bloodborne pathogens
- sexual contact with an infected person
- perinatal
- contaminated needles

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## Hepatitis B

Risk groups include:

- healthcare workers
- intravenous drug use
- heterosexuals
- homosexuals
- nursing infants
- hemodialysis patients

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## Hepatitis B

Signs/Symptoms include:

- jaundice, especially to the eyes
- fatigue
- abdominal pain
- loss of appetite
- intermittent nausea
- vomiting

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## Hepatitis B

Prevention includes:

- vaccination available since 1982.
- gloves, double up if necessary
- used needles properly disposed
- report-document any exposures using a hospital exposure form

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## *Hepatitis C* (HCV)

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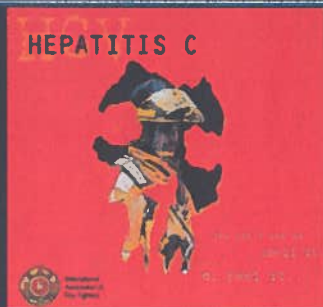
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## Hepatitis C



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## Hepatitis C

We stand at the precipice of a grave threat to our public health. It affects people from all walks of life, in every state, in every country. And unless we do something about it soon, it will kill more people than AIDS.

- C. Everett Koop  
Former U.S. Surgeon General



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## Hepatitis C!! Should You be Concerned

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## Hepatitis C



- More than 1,800 Firefighters, EMT's, Paramedic, and supporters around the country rallied for the Hepatitis C Awareness march to support members that caught the disease
- Motto was: "Hepatitis-C was contracted in the line of duty."

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## Hepatitis C

**"Hepatitis C is the most common bloodborne infection in the United States and is four times more prevalent than HIV".**

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## Hepatitis C

- known earlier as non-A and non-B
- 85% of HCV cases progresses into chronic liver infection.
- HCV worldwide effects 270-300 million.
- 3.9 million (1.8%) U.S. people are infected.
- estimated 230,000 new cases occurs annually.
- Florida has approximately 270,00 chronic cases of HCV.

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## Hepatitis C

- can progress to cirrhosis, liver cancer, and liver failure.
- leading cause of liver transplants in the United States
- mortality in 2000 is estimated to be at about 8,000 - 10,000 Americans.

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## Hepatitis C

Transmission of disease is through:

- bloodborne pathogens
- sexual contact with infected person
- perinatal
- contaminated needles

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## Hepatitis C

Risk groups include:

- healthcare workers
- hemodialysis patients
- transfusions, but since blood screening, risk has diminished
- heterosexuals and homosexuals
- intravenous drug use

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## Hepatitis C

Signs/Symptoms include:

- jaundice, especially to eyes
- fatigue
- abdominal pain
- loss of appetite
- intermittent nausea
- vomiting

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## Hepatitis C

Prevention includes:

- minimum body substance isolation
- proper blood, organ, and tissue screening
- dispose of needles properly
- no recapping of contaminated sharps
- report-document any exposures using a Unified Exposure Form

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## Avian Influenza (Bird Flu)

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## Avian Influenza

What is Bird Flu?

- Infection (H5N1) is caused by bird flu viruses
- Occurs naturally among birds worldwide
- Very contagious among birds

\* According to the Centers for Disease Control and Prevention

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## Avian Influenza

- Spreads easily to domestic birds by either direct contact, surface contact of cages, or food and water supply.
- Spread through saliva, nasal secretions and feces

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## What's a pandemic?

- Influenza (Flu) epidemics occur every year
- Influenza viruses constantly undergo minor changes
- Changes are the reason why people get infected with the flu many times in their life time.
- Each year scientist and physicians develop a vaccine for the upcoming flu season

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## What's a pandemic?

- Influenza viruses can undergo major changes which results in a strand of virus that the population has no immunity
- Sporadic and unpredictable changes in strand that causes high rates of illness, infection and death results in a "pandemic"

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## Avian Influenza

### How does Avian Flu infect humans?

- Does not usually infect humans
- More than 170 occurrences since 1997
- Most result from direct contact with poultry or contact with contaminated surfaces (bird handling, poultry processing)

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## Avian Influenza

### Two main risks to humans:

- Direct infection from bird to human
- Risk that the virus will change or mutate to form a highly infectious strain to humans
- No flu vaccine will provide protection

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## Avian Influenza

### Who should be vaccinated?

- Those at increased risk: elderly adults, children (6 to 23 months), pregnant women, and those with chronic medical conditions
- Persons who live or care for persons at high risk
- All health care workers
- Persons with any condition that can compromise respiratory function

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## Avian Influenza

### Human Symptoms:

- Typical Flu-like symptoms
- Eye infections
- Pneumonia
- Severe Respiratory
- other complications

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## Avian Influenza

Only a laboratory  
test can confirm  
Avian Flu  
in humans

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## Avian Influenza

### Precautions:

- Observe wildlife from a distance
- Do not handle or eat sick game
- Wear rubber/disposable gloves while handling and cleaning game
- Do not rub eyes, eat, drink or smoke before washing hands after handling animals
- Cook all game thoroughly

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## Avian Influenza

### Prevention includes:

- Strict adherence to Forest View Infection Control Program
- HEPA mask (N95 or greater)
- Gloves
- Protective eyewear
- Properly dispose of used supplies into appropriate area

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## Avian Influenza

### Rescue unit decontamination:

Vehicle's used to transport persons suspected of having Avian Flu should be cleaned by staff wearing protective equipment, using a disinfectant cleaner

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*What's Next!*



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## Infectious Disease

In summary, the healthcare provider can minimize the chance of contracting these infectious diseases by:

- Knowledge
- Observation
- Information
- Protection

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*"One second of safety  
can bring years of  
healthy living."*



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THE END

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### Infectious Disease References

- United States Department of Health and Human Services
- Centers for Disease Control and Prevention (CDC), Atlanta, Georgia
- Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, *MMWR* 2001;50:430-434

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### Infectious Disease References

- CDC National Prevention Information Network, Rockville, Maryland
- OSHA Blood-borne Pathogens Standard 29 CFR 1910.1030; 56 Fed. Reg. 64004 (1991)

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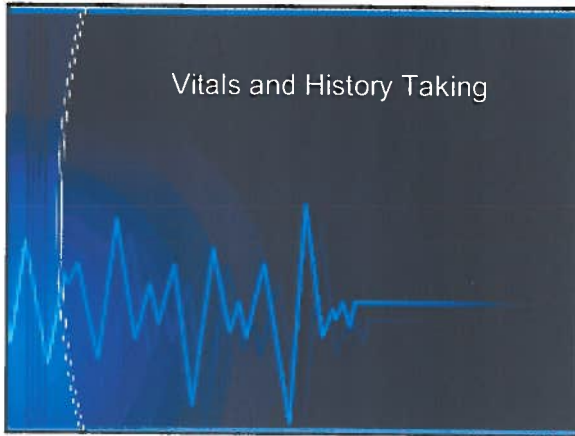
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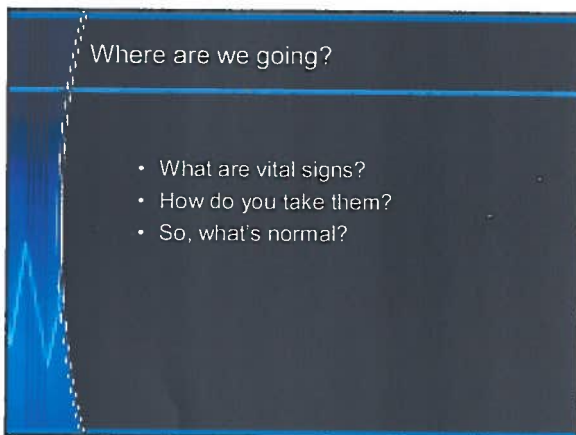
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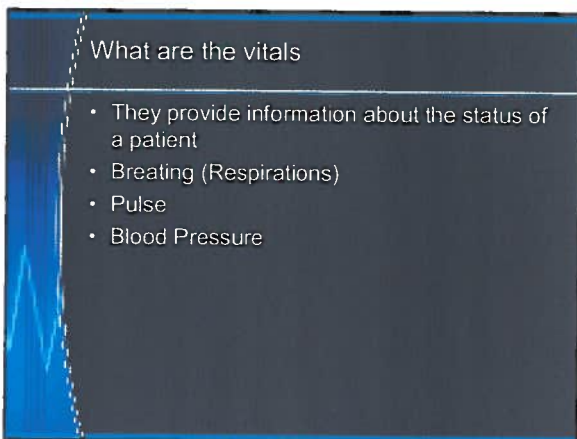
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### Counting Respirations

- Respiration is one inhalation and exhalation.
- Determined by counting for 30 sec, and multiplying by 2.
- A hand on the stomach/chest may help

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### Normal Respirations

- Adult 12-20/min
- Child 15-30/min
- Infant 25-50/min



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### Respiration Quality

- Normal
- Shallow (low tidal volume)
- Labored
  - Use of accessory muscles
  - Flaring
  - Tripod Breathing
- Noisy breathing

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## Pulse

- Determined by counting for 30 sec and multiplying by 2.
- Irregular pulse counted for 60 sec.
- Provides information about heart, blood volume and perfusion.
- Taken at a pulse point
- Don't use your thumb

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## Common Pulse Points

- **Central Pulses**
  - Carotid
  - Femoral
- **Peripheral Pulses**
  - Radial
  - Brachial (children under 1)
  - Posterior Tibial, Dorsalis Pedis



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## Pulse Quality

- Normal
- Bounding
- Weak
- Thready
- Regular/Irregular

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### Normal Pulse Rate

- Adult 60-80/min
- Child 80-120
- Infant 120-150



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### Blood Pressure

- Taken with manual or automatic BP cuff
- Can be taken by auscultation or palpation



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### Key Terms

- Systolic
  - Pressure when heart is pumping
- Diastolic
  - Pressure when heart is at rest



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### BP by Auscultation

- Size using guides on cuff
- Position on upper arm hoses pointing down
- Inflate 30mmHg past pulse
- Position stethoscope over brachial artery
- Deflate
- Note first sound and last sound
- Record as systolic/diastolic (140/80)

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### BP by Auscultation

- Size using guides on cuff
- Position on upper arm hoses pointing down
- Inflate 30mmHg past pulse
- Position stethoscope over brachial artery
- Deflate
- Note first sound and last sound
- Record as systolic/diastolic (140/80)

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### BP by Palpation

- Size using guides on cuff
- Position on upper arm centered over brachial artery
- Inflate 30mmHg past pulse
- Deflate
- Record point at which pulse returns
- Record as Systolic/P (135/p)

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## Normal Blood Pressure

- Male
  - Systolic =  $100 + \text{age}$  until 50
  - Diastolic = 60-90
- Female
  - Systolic =  $90 + \text{age}$  until 50
  - Diastolic = 50-80

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## One last note on Vitals

- First set of vitals is the baseline, you are interested in changes
- On not sick patients, repeat every 15 minutes
- On sick patients, repeat every 5 minutes
- Treat patient, not the vital signs or the equipment

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## Now its Your Turn

- Several stations have been set up for you to practice taking vitals



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Several stations have been set up for you to practice taking vitals

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Now its Your Turn "Review"

- Any questions
- Practice, practice, practice
- Review handouts



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## Thirids Skills:



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## Airway Equipment :



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### Location and Use:

- Nasal Cannula
- Non-Rebreather Mask
- Bag Valve Mask
- Backboarding

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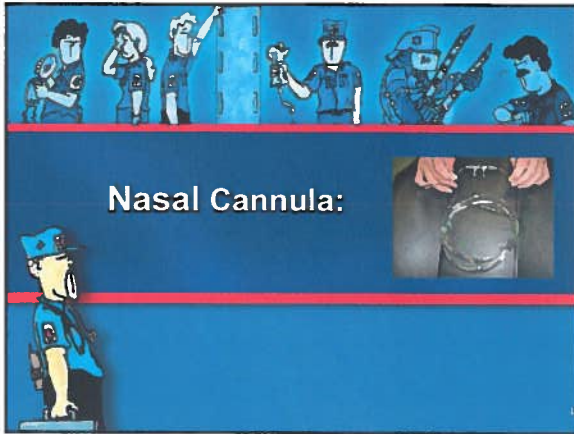
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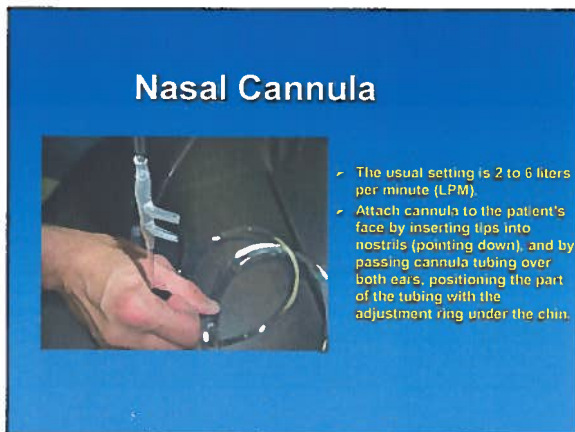
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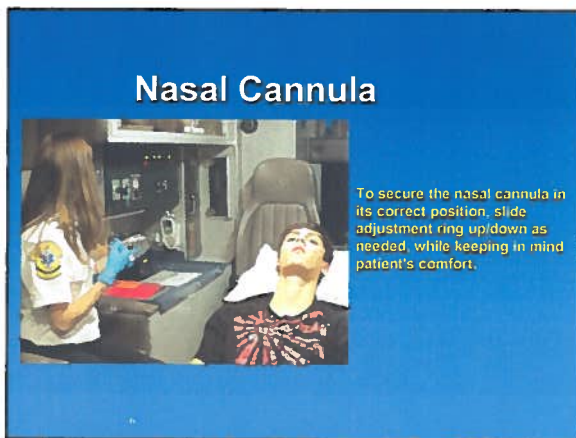
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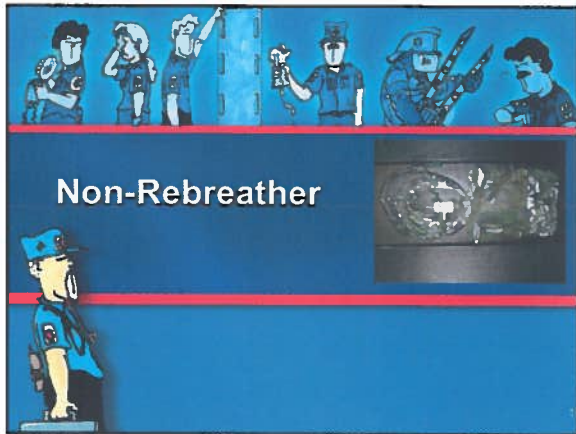
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## Non-Rebreather

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## Non-Rebreather (NRB)



- The usual setting is 15 liters per minute (LPM). Inflate the reservoir bag completely before applying it to the patient. This is accomplished by blocking off the one-way valve between the mask and the reservoir bag.
- Once the reservoir is completely inflated, fit the mask to the patient's face. Secure the elastic strap around the back of the head.
- Form the soft metal piece, at the top of the mask, to conform to the nose.

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## Non-Rebreather (NRB)



- Constantly monitor the reservoir bag to ensure that it remains filled during inhalation.
- The non-rebreather mask can be used on infants and children. You may need to coach the patient to breathe normally and provide reassurance that they are getting a sufficient amount of oxygen.
- If an infant or small child does not tolerate the mask, either you, a parent, or someone else familiar with the child can hold the mask close to their face.

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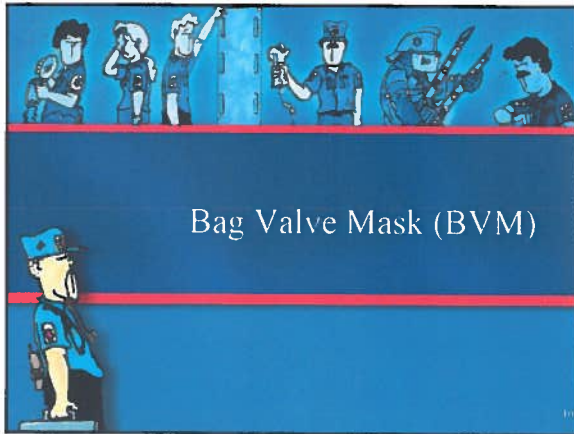
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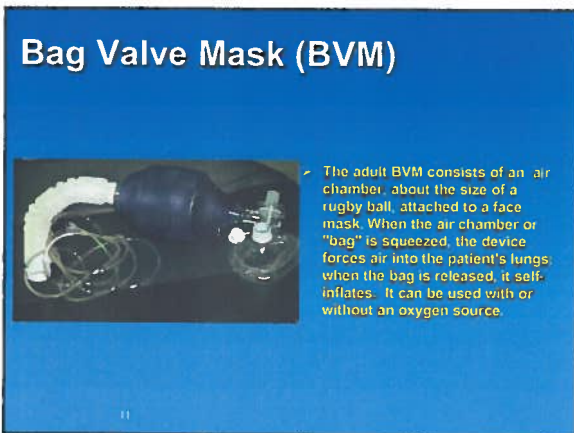
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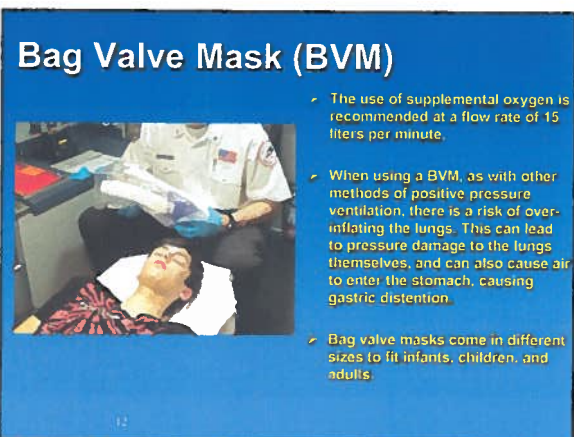


## Bag Valve Mask (BVM)



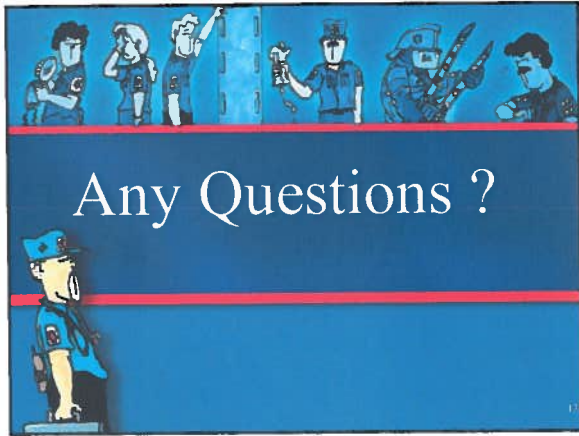
## Bag Valve Mask (BVM)

- The adult BVM consists of an air chamber, about the size of a rugby ball, attached to a face mask. When the air chamber or "bag" is squeezed, the device forces air into the patient's lungs; when the bag is released, it self-inflates. It can be used with or without an oxygen source.



## Bag Valve Mask (BVM)

- The use of supplemental oxygen is recommended at a flow rate of 15 liters per minute.
- When using a BVM, as with other methods of positive pressure ventilation, there is a risk of over-inflating the lungs. This can lead to pressure damage to the lungs themselves, and can also cause air to enter the stomach, causing gastric distention.
- Bag valve masks come in different sizes to fit infants, children, and adults.



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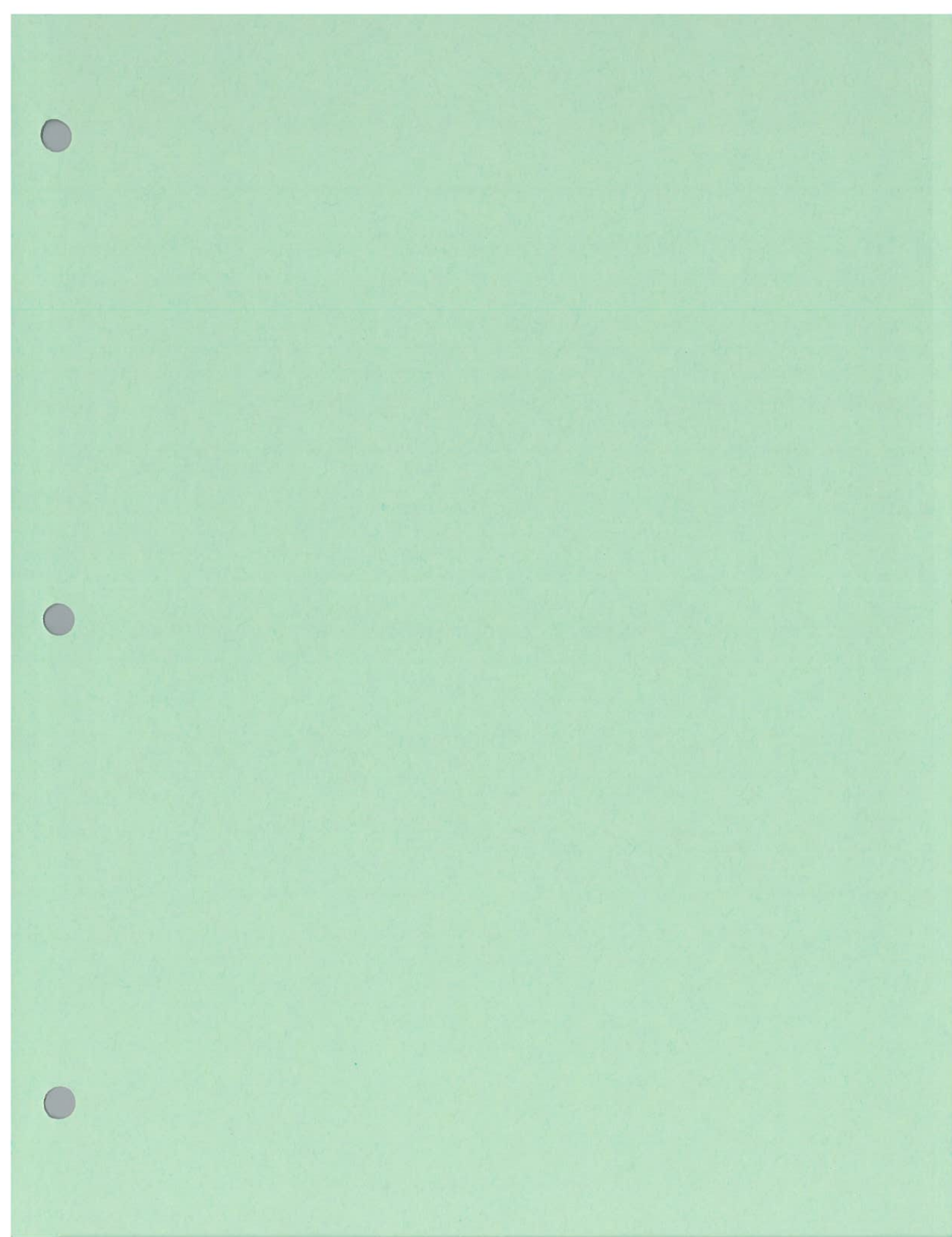
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## Thirds Skills:



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## Splinting



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## Duties and Responsibilities :



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## Duties and Responsibilities

- Know where all the splinting equipment is located
- Know how to assist with all the different types of splints
- Train with your crews if you do not know!

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## Splinting

- Stabilize the extremity
- Assess for PMS before and after
- Have the ability and knowledge assist in securing splint



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## What Does FVRS Use?

➤ Vacuum splints

➤ Foam Splints

➤ Sam Splints

➤ Board splints

➤ KED (Kendrick Extricating Device)

➤ Reeves Stretcher

➤ Traction Splint



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## Devices for moving a patient

➤ Stretcher

➤ Stairchair

➤ Reeves Stretcher

➤ Backboard

➤ KED



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## Back boarding:

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## Cervical Collars



- Help stabilize head and neck
- Most First Responders don't apply cervical collars by themselves but may assist EMTs

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## Applying a Cervical Collar to a Supine Patient

- Choose correct size. Measure with fingers from top of shoulder to bottom of chin
- First rescuer holds head in line. Second rescuer slips back section of open collar under patient's neck
- Correctly position collar to fit chin and neck



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## Applying a Cervical Collar to a Supine Patient Continued

- Close collar with Velcro attachment
- Ensure collar fits correctly, following manufacturer's instructions
- Continue to manually support head and neck in line



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## Back boarding

- Potential spinal injury patients usually immobilized on backboard before being moved to stretcher
- Thirds may assist emergency personnel when positioning patient on backboard



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## Back boarding continued

- Many backboard types are available
- Use short backboards or KED's for patients in a seated position or confined space
- Use long backboards in most other situations



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## Positioning Patients on a Long Backboard

- Three or more rescuers needed
- Position long backboard beside patient
- One rescuer maintains head and neck stabilization while other rescuers take position



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## Positioning Patients on a Long Backboard Continued

- Slide backboard next to patient
- On cue from rescuer at head, other rescuers roll patient as a unit
- Patient is secured to backboard using straps



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## Any Questions ?



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## Safety

*"Safety is the responsibility of everyone." If you see something, say something. Just as well, everyone on a crew is a safety officer - leaders should provide the tools for even the third to fill this role."*



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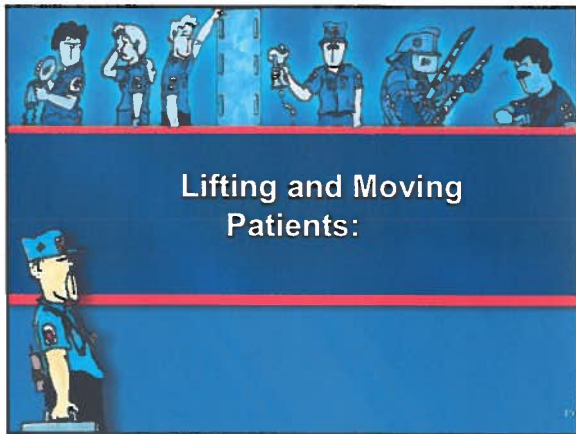
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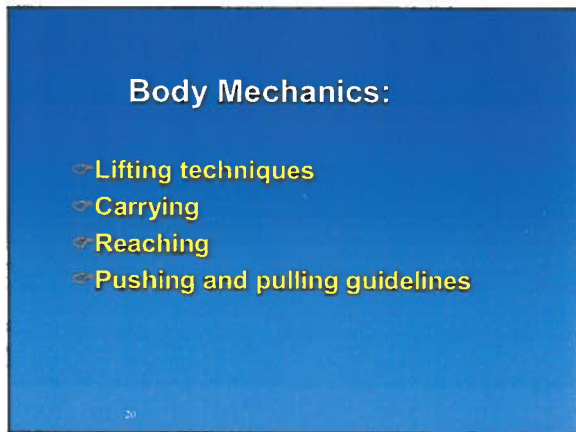
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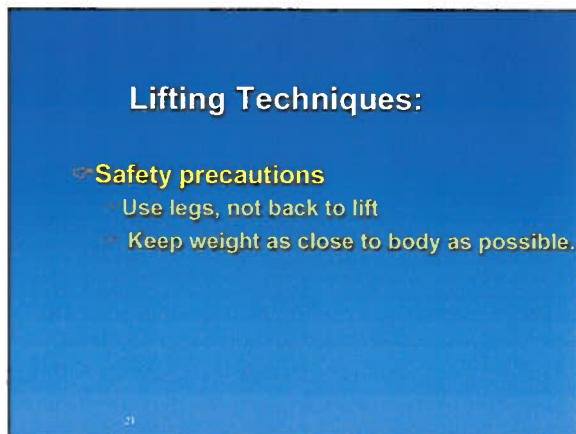
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## Guidelines for Lifting:

- Consider weight of patient and need for additional help.
- Know physical limitations and ability.
- Lift without twisting.
- Have feet positioned properly.
- Communicate clearly and frequently with partner.

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## Safe Lifting of Cots and Stretchers:

- When possible use a stair chair instead of a stretcher if medically feasible.
- Know or find out the weight to be lifted.
  - Use at least two people.
  - Ensure enough help available.
  - Use an even number of people to lift so that balance is maintained.
- Know or find out weight limitations of equipment being used.
  - Know what to do with patients who exceed weight limitations of equipment.

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## Use Power-Lift or Squat-Lift Position:

- Keep back locked into normal curvature.
- The power-lift position is useful for individuals with weak knees or thighs.
  - The feet are a comfortable distance apart.
  - The back is tight and the abdominal muscles lock the back in a slight inward curve.
  - Straddle the object. Keep feet flat.
  - Distribute weight to balls of feet or just behind them.
  - Stand by making sure the back is locked in and the upper body comes up before the hips.

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### Precautions for Carrying:

- ☞ Whenever possible, transport patient on devices that can be rolled.

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### Guidelines for Carrying:

- ☞ Know or find out weight to be lifted.
- ☞ Know limitations of crew's abilities.
- ☞ Work in coordinated manner and communicate with partners.
- ☞ Keep weight as close to body as possible.
- ☞ Keep back in locked-in position and refrain from twisting.
- ☞ Flex at the hips, not waist; bend at the knees.
- ☞ Do not hyperextend the back (don't lean back from the waist)

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### Correct Carrying Procedure:

- ☞ Use correct lifting techniques to lift the stretcher.
- ☞ Partners should have similar strength and height.

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### One-Handed Carrying Technique:

- Pick up and carry with back in locked-in position.
- Avoid leaning to either side to compensate for the imbalance.

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### Correct Carrying Procedure on Stairs.

- Use a stair chair instead of a stretcher, when possible.
- Keep back in locked-in position.
- Flex at the hips, not waist; bend at the knees.
- Keep weight and arms as close to body as possible.

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- Practice applying a cervical collar to a patient
- Practice using several types of splints
- Practice safe lifting techniques
- Practice Backboarding
- Practice using a stretcher
- Practice using a stair chair
- Practice using the Reeves stretcher

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## Thirde Skills:



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## Assisting the ALS AIC



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## Duties and Responsibilities :



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## Duties and Responsibilities

- Know where all the equipment is located
- Know how to assist with all the different types of equipment
- Train with your crews if you do not know!

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## The I. V.

- Intravenous therapy or IV therapy is the giving of liquid substances directly into a vein. It can be intermittent or continuous: continuous administration is called an intravenous drip. The word intravenous simply means "within a vein", but is most commonly used to refer to IV therapy.



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## What do we need for an I.V.

- 10 OR 60 DRIP SET (Micro or Macro)
- Extension tubing ( 3 way stopcock)
- Normal Saline Bag (The fluids)
- Alcohol prep
- Tourniquet
- Catheters (Normally 18 or 20 gauge)
- Gauze ( 4x4 or 2x2)
- Tape (Veniguard®, Bio-occlusive®)



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## Saline Lock

### Description:

A saline lock (sometimes called a heparin lock) is initiated when a patient does not or no longer needs IV fluids, but may still need IV access for emergencies or future infusions. Accessing a saline lock for medication administration is dependent on the type of port that is at the end of the IV tubing.

### Description:

A flush syringe is a pre-drawn vial of fluid (usually normal saline) that can be used for multiple purposes including clearing a line after IV bolus, establishing a saline lock or testing for line patency. It may come in different sizes and amounts (e.g. 3cc, 5cc, 10cc).

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## What do you need for a Saline Lock?

- Saline Lock extension
- Saline Flush
- Gather tourniquet
- gauze pad
- alcohol prep
- tape/commercial securing device (Veniguard®, Bio-occlusive®)



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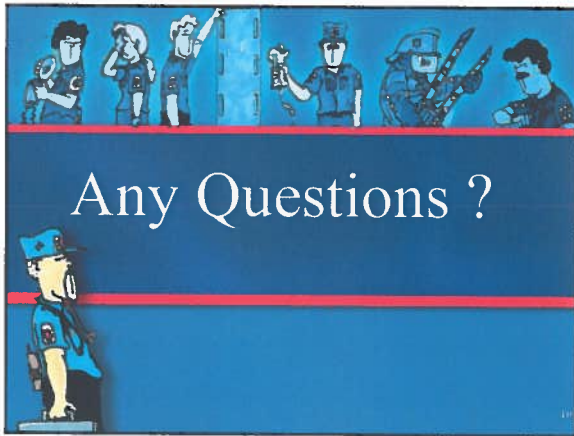
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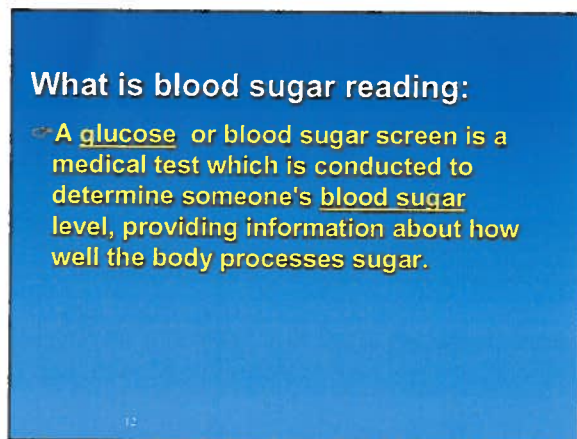
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## How to check a blood sugar

### ☛ Safety precautions

Always have on your PPE: Gloves and possible eye pro.

1. Prepare the glucometer by taking out all necessary supplies needed for this task

2. CLEAN FINGERTIP area thoroughly using soap or alcohol prep. Make sure to dry thoroughly.

3. PRICK FINGER with lancet. Discard the first drop of blood by wiping on clean dry tissue.

4. Squeeze finger to obtain a LARGE DROP of blood by wiping on the clean tissue.

5. PLACE BLOOD ON TEST AREA: Gently bring the lower part of the blood drop into contact with the test area. Verify that the monitor has started to count down.

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## Supplies needed for a blood sugar check.

- ☛ Glucometer
- ☛ Test strip
- ☛ Lancet
- ☛ Alcohol prep
- ☛ 2x2 gauze
- ☛ Band aid



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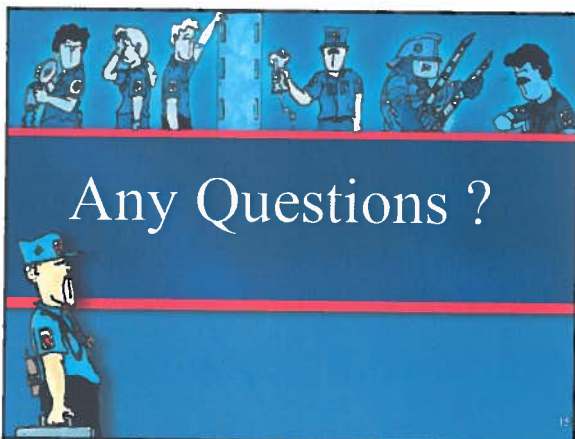
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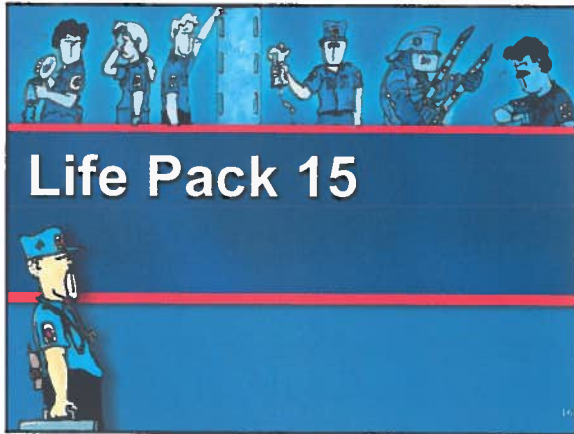
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What is our Life Pack 15

Heart Monitor

AED

12 LEAD EKG



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Limb Lead Placement

Avoid placing on the trunk!!!

Traditional Placement

Acceptable Placement

A diagram showing two human figures. The left figure is labeled "Traditional Placement" and has electrodes on the arms and legs. The right figure is labeled "Acceptable Placement" and has electrodes on the upper arms and thighs. A red box with the text "Avoid placing on the trunk!!!" points to the torso area of the right figure.

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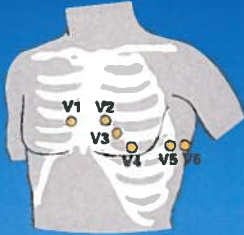
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## Chest Lead Placement



- V1: fourth intercostal space to right of sternum
- V2: fourth intercostal space to left of sternum
- V3: directly between leads V2 and V4
- V4: fifth intercostal space at left midclavicular line
- V5: level with V4 at left anterior axillary line
- V6: level with V5 at left midaxillary line

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## Chest Lead Placement



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## LP15 as an AED

- When the LP15 is turned on it is set up as an AED.
- Connect the pads then hit the analyze button.



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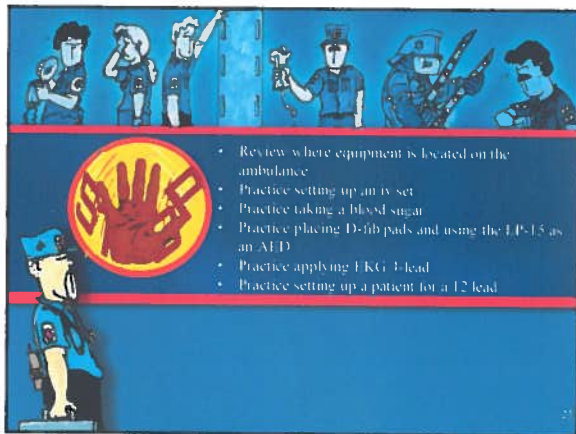
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